

IN THE CLAIMS:

Please amend claims 1-3 and add new claims 4-7 as follows:

1. (Currently Amended) A manufacturing method of a thin film magnetic head comprising:

~~preparing an upper~~ forming a lower magnetic core,

forming an end portion of an upper magnetic core above said lower magnetic core,

forming a rear portion of said upper magnetic core by using a negative resist or an electron beam resist to form a frame for plating above said end portion of said upper magnetic core,

covering an end portion of said upper magnetic core with a non-magnetic protective film,

and

removing said non-magnetic protective film from an upper part until said upper magnetic core is exposed,

wherein a front end of a connection area in which said end portion is connected to a rear portion of said upper magnetic core is located between a face opposed to a medium and a position defining ~~the~~ a gap depth.

2. (Currently Amended) <sup>the</sup> A manufacturing method of a said thin film magnetic head according to claim 1, wherein said non-magnetic protective film is removed by a polishing process or an etch-back process using dry etching.

3. (Currently Amended) <sup>the</sup> A manufacturing method of a said thin film magnetic head according to claim 1, wherein said non-magnetic protective film is removed by using one or more kinds of gases selected from CF<sub>4</sub>, C<sub>4</sub>H<sub>8</sub>, CH<sub>3</sub>, BCl<sub>3</sub>, Cl<sub>2</sub>, SiCl<sub>4</sub>, Ne, Ar, Kr, and Xe.

Please add new claims 4-7 as follows:

4. (Newly Added) <sup>the</sup> A manufacturing method of a thin film magnetic head according to claim 1,

wherein said end portion of said upper magnetic core has a first face emerging at a face <sub>obj</sub>

opposed to a medium, and

wherein said rear portion of said upper magnetic core has a second face not emerging at a face opposed to the medium, which is connected to said end portion of said upper magnetic core at a position of said second face.

5. (Newly added) <sup>The</sup> A manufacturing method of said thin film magnetic head according to claim 4, wherein a distance between said first face and said second face is 0.2 to 1.5  $\mu m$ .

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6. (Newly added) A manufacturing method of a thin film magnetic head comprising:  
forming a lower magnetic core,  
forming an end portion of an upper magnetic core above said lower magnetic core, and  
forming a rear portion of said upper magnetic core by using a negative resist or an electron beam resist to form a frame for plating, above said end portion of said upper magnetic core,

wherein said end portion of said upper magnetic core has a first face emerging at a face opposed to a medium,

wherein said rear portion of said upper magnetic core has a second face not emerging at a face opposed to the medium, which is connecting to said end portion of said upper magnetic core at a position of said second face.

7. (Newly added) A manufacturing method of said thin film magnetic head according to claim 6, wherein a distance between said first face and said second face is 0.2 to 1.5  $\mu m$ .

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